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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,680	09/12/2003	Yuji Yasuda	242298US3	7687

22850 7590 12/30/2004

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EXAMINER

COTTINGHAM, JOHN R

ART UNIT PAPER NUMBER

2116

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/660,680

Applicant(s)

YASUDA, YUJI

Examiner

John R. Cottingham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 9-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent 37 36364 (hereinafter referred to as German Patent '364). German Patent '364 shows all of the claimed subject matter of a structure in Figures 1-4.

Regarding claim 1, a structure comprising first material comprising a plate having a thickness of 1 millimeter or less (from figures), the plate 3a and 5a having top and bottom surfaces the top and bottom surfaces defining a hole with a surface in defining hole 11 with a surface to be threaded therebetween and defining a concave portion and a convex portion surrounding the hole and having diameters larger than the hole, the concave portion defined in the top surfaces and the convex portion defined in the bottom surface: a second material contacting the top surface of the first material such that a hole defined in the second material is allied with the hole, the concave portion, and the convex portion in the first material: and a tapping screw 9 disposed through the holes, the concave portion, and the convex portion in the first and second materials to connect the first and second materials, a threaded portion of the tapping screw

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12 cooperating with a threaded surface of the first material that is tapped with the tapping screw, and a head of the tapping screw contacting the second material 6a.

Regarding claim 2, wherein a diameter of a bottom of the concave portion is larger than an outer diameter of the tapping screw 9.

Regarding claim 3, wherein a depth of the concave portion 11 is $\frac{1}{4}$ to $\frac{1}{2}$ of a thickness of the first material in the concave portion.

Regarding claim 4, wherein the concave portion 11 is trapezoid in shape and a diameter of a bottom of the concave portion is smaller than a diameter of a top thereof.

Regarding claim 9, a method of forming a structure, comprising: forming in a first material 3a and 5a a through hole 11 and a concave portion on a top surface of the first material; contacting a second material 6 with the top surface of the first material such that a through hole defined in the second material is aligned with the through hole and the concave portion in the first material; and connecting the first and second materials by disposing a tapping screw 12 through the concave portion and the through holes of the first and second materials such that a head of the tapping screw contacts the second material.

Regarding claim 10, wherein the concave portion is formed by half blanking.

Regarding claim 11, further comprising: tapping with a threaded portion of the tapping screw a surface of the first material that defines the hole.

Regarding claim 12, wherein the concave portion is formed surrounding the through hole in the first material.

R sponse to Arguments

3. Applicant's arguments filed 9/30/04 have been fully considered but they are not persuasive. Applicant argues that German Patent '364 does not show 3a and 5a together as the first material with a concave hole and contacting a second material, and a threaded portion of the screw cooperating with a threaded surface of the hole that is tapped with the tapping screw. The Examiner disagrees, German Patent '364 shows all of the claimed subject matter, materials 3a and 5a are the first material with a concave portion surrounding a hole 11 which is shown in Figure 2, and tapping screw 9 threads holes 11 meeting all the claimed limitations.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Cottingham whose telephone number is (571) 272-7079. The examiner can normally be reached on Monday - Thursday, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571)272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John R. Cottingham
Primary Examiner
Art Unit 2116

jrc